

# Greater Yellowstone: Too Precious for Noxious Weeds

The Greater Yellowstone Coordinating Committee (GYCC) identified invasive species, specifically noxious weeds, as one of the priority management issues to be addressed within the Greater Yellowstone Area (GYA). The high priority is in recognition of the ecological threat posed by invasive species to native plant communities and wildlife that depend upon these communities.

Invasive species are those plants not native to a region which, when introduced either accidentally or intentionally, out-compete native plants for available resources, reproduce prolifically, and dominate regions and ecosystems. Because they often arrive in new areas unaccompanied by their native predators, invasive species can be difficult to control. Left unchecked, noxious weeds have the potential to transform entire ecosystems, as native species and those that depend on them for food, shelter, and habitat, disappear.

All units are engaged in active and integrated noxious weed programs that include prevention, awareness and education, manual, chemical and biological control efforts, and inventory and mapping. The Greater Yellowstone Weed Group meets periodically to share information and to develop coordinated strategies. An overview of the current situation as well as current and proposed management actions follows.

## Control and Management

When invasive species appear to be permanently established, the most effective action may be to prevent their spread or lessen their impacts through control measures. Control and management of invasive species encompasses diverse objectives such as eradication within an area, population suppression, limiting spread, and reducing effects. Integrated pest management (IPM) is an approach to invasive species that flexibly considers available information, technology, methods, and environmental effects. Methods include removal (e.g., hand-pulling, burning, and mowing), judicious use of pesticides, release of biological control agents (such as host-specific predatory organisms), and cultural practices.

In general, control efforts are improving thanks to increases in funding and the success of cooperative efforts. However, funding has not been adequate to prevent the spread of weeds and to implement a fully integrated program. One bright spot is the multiple partnerships created with organizations like the Rocky Mountain Elk Foundation, the Foundation for North American Wild Sheep, state fish and game departments, and local con-

servation districts and weed management areas.

GYCC Recommendations:

- Units will identify current budget levels and the program level necessary to fund a fully integrated invasive species management program. The GYCC weed committee will continue to look for opportunities to share resources and reduce duplication of efforts. Unit managers and the executive coordinator will explore options to increase funding.
- Units will update current inventories by species. The committee will use this information to help classify noxious weeds in terms of GYCC priorities. Weeds that pose little risk to native plant communities will be a lower priority whereas species that pose the greatest risk to natural communities will be the highest priority. Priorities will be helpful in developing GYA-wide education and awareness tools, prevention strategies, inventory and mapping strategies, and integrated control measures.
- Cooperative training across unit boundaries will be encouraged.
- GYCC project funds will continue to be directed towards cooperative control projects. Good examples include the spotted knapweed project along the Gros Ventre River involving Grand Teton National Park, the National Elk Refuge, the Bridger Teton National Forest, and private land, and the partnership to control dalmatian toadflax on the South Fork of the Shoshone River.

## Prevention

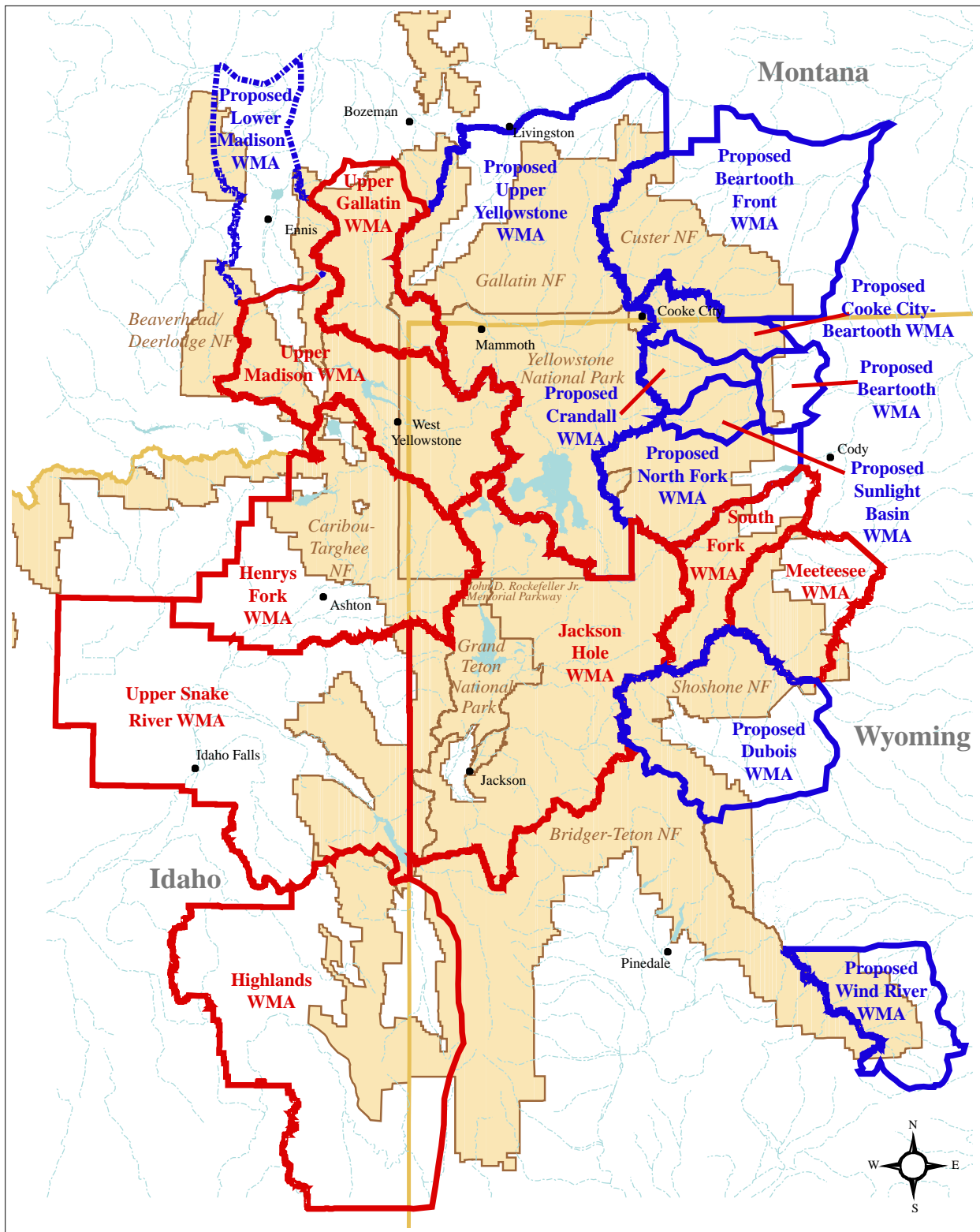
The first line of defense is prevention. Often, the most cost-effective approach to combating invasive species is to keep them from becoming established in the first place. Most units have adopted standards, guidelines, and best management practices to prevent the introduction of new weeds. A good example is the weed free feed regulations that require livestock feed to be free of weeds.

GYCC Recommendations:

- Recommend use of best management practices (used in Forest Service Regions 1 and 4) for all GYCC units. Conduct periodic reviews on each unit to help ensure practices are appropriately applied.
- Complete GYA-wide risk map for key species showing potential spread based on weed ecology and habitat types or groups. Tier to Forest Service Region 1 approach. Risk maps depict the vulnerability of various habitat types to weed infestation, and help determine priority areas for monitoring, prevention, and mitigation measures.

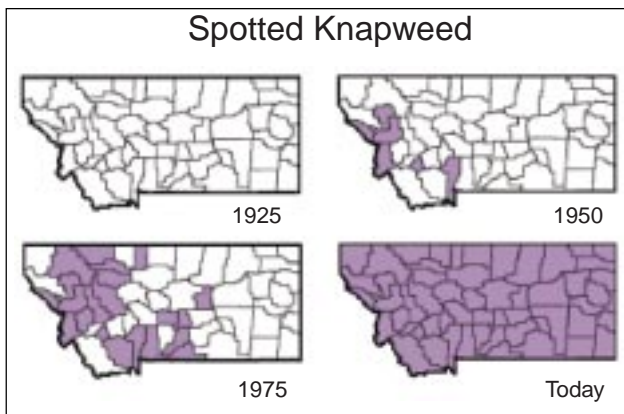


# The Greater Yellowstone Area: Weed Management Areas (WMA)



This map was made from Greater Yellowstone Data provided by the Greater Yellowstone Coordinating Committee. Map by R. Van Hoven, January 9, 2000. Version 1.1, gyaweeds.apr





*Today, spotted knapweed is present in all Montana counties.*

## Early Detection and Rapid Response

We cannot prevent all introductions. However, early detection of introductions and quick, coordinated response can eradicate or contain invasive species at much lower cost than long-term control, which may be infeasible or prohibitively expensive. Invasive species should be detected and dealt with before they become established and spread.

Monitoring and early detection is largely dependent upon the noxious weed crews and coordinators. There is a limited number of people who can recognize the new invaders. Monitoring is primarily focused on travel corridors; detection of new infestations in backcountry or remote areas is more difficult. With over 78 percent of the ecosystem either roadless or designated wilderness, keeping track of backcountry infestations remains a challenge.

GYCC Recommendations:

- Develop partnership/pilot project with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds to develop a GYA early warning system and rapid response capability. Ensure that information on new invaders is rapidly shared amongst units and cooperators.
- Explore options for a systematic approach to help ensure that high risk areas are examined on a periodic basis.
- Increase emphasis on internal (employees and cooperators) awareness to augment detection capabilities. This is particularly important given the large, primarily unroaded land area and limited staffs dedicated to weed management.

## Education and Public Awareness

How invasive species are viewed is molded by human values, decisions, and behaviors. The prevention and control of invasive species will require modifying behaviors, values, and beliefs and changing the way decisions are made regarding our actions to address invasive species.

Even with funding constraints, the awareness and education program trend has improved with increased signing, cooperative efforts with states, counties, and weed management areas, education efforts with schools and forest and park visitors, and implementation of best management practices for a wide variety of forest and park uses.

GYCC Recommendations:

- In cooperation with partners from Montana State University and the Center for Invasive Plant Management, develop strategy and products to increase awareness, prevention, and early detection capabilities across the ecosystem. Ideas include a slide presentation for use by all units, an interactive “Jeopardy” game, posters, and a GYA pocket guide to help increase awareness among all employees, contractors, outfitters, and concessionaires.

## Information Management

The long-term goal is to provide accessible, accurate, and comprehensive information on invasive species that will be useful to local, state, tribal, and federal managers, scientists, policy-makers, and others.

GYCC Recommendations:

- All units will maintain current inventory maps that can be compiled into an GYA-wide map of current infestations.
- Compile a year-end report that summarizes major activities, information on new invaders, cooperative activities, and accomplishments.

## Cooperative Weed Management Areas

CWMAs consist of private landowners, local, state and federal representatives working together to manage weeds in a defined area. Benefits of CWMAs include shared resources and data, more effective control efforts with agreed upon priorities, community education programs, and improved overall coordination with management. Private sector/county involvement is critical for success. Currently there are eight established weed management areas operating in the GYA.

GYCC Recommendations:

- Cooperate with local counties, state, and other agencies to support existing weed management areas and to establish additional ones.

For additional information about invasive species, contact: Jackson Hole Weed Management Area website: <http://www.jhwma.org/>

The national invasive species information system: <http://www.invasivespecies.gov/>

